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9	TRANSCRIPT OF PROCEEDINGS
10	NASA/JPL CERCLA RPM MEETING
11	WEDNESDAY, FEBRUARY 22, 2006
12	FOOTHILL MUNICIPAL WATER DISTRICT
13	4536 HAMPTON ROAD LA CANADA FLINTRIDGE, CALIFORNIA
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1 APPEARANCES AFFILIATION

2 STEVE SLATEN NASA

3 MERRILEE FELLOWS NASA

4 MARK RIPPERDA US EPA

5 GARY TAKARA PASADENA WATER & POWER

6 BRAD BOMAN PASADENA WATER & POWER

7 LORI GARNER BATTELLE/NASA

8 SUSAN SANTOS FOCUS GROUP (VIA PHONE)

9 KEITH FIELDS BATTELLE/NASA

10 MOHAMMAD ZAIDI LOS ANGELES RWQCB

11 CHUCK BURIL JPL

12 ROUMIANA KARAKANOVA PASADENA WATER & POWER

13 NICK AMINI BATTELLE/NASA

14 ALAN SORSHER CALIFORNIA DHS

15 STEFAN CAJINA CALIFORNIA DHS

16 BOB HAYWARD LINCOLN AVENUE WATER COMPANY

17 MARK VELASQUEZ RAYMOND BASIN MANAGEMENT BOARD

18 LINDA THOMAS FOOTHILL MUNICIPAL WATER DISTRICT

19 JAMES KO CALIFORNIA DHS - LOS ANGELES

20 MICHEL ISKAROS CA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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- 1 La Canada, California, Wednesday, February 22, 2006
- 2 10:05 a.m.

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- 4 MR. SLATEN: Let's just go ahead and jump into it.
- 5 Kind of the usual list of things. Public involvement
- 6 we'll go ahead and kind of put after OU-1 and OU-3 today,
- 7 just it seemed to fall nicely there.
- 8 Let's start the first slide.
- 9 THE REPORTER: Excuse me. Would you have everyone
- 10 identify themselves before we get started.
- 11 MR. SLATEN: Thank you. I'm sorry.
- 12 Okay. Steve Slaten, NASA JPL, Remedial Project
- 13 Manager.
- 14 MS. FELLOWS: Merrilee Fellows, NASA, Manager of
- 15 Public Outreach.
- 16 MR. FIELDS: Keith Fields, F-i-e-l-d-s, Battelle.
- 17 MS. FELLOWS: We're introducing ourselves.
- 18 MR. ZAIDI: Mohammad Zaidi, RWQC Board, Los Angeles.
- 19 MR. ESKAROS: Michel Iskaros, DTSC.
- 20 MR. RIPPERDA: Mark Ripperda, EPA.
- 21 MR. TAKARA: Gary Takara, Pasadena.
- 22 MS. KARAKANOVA: Roumiana Karakanova, Pasadena.
- 23 MR. AMINI: Nick Amini, Battelle.
- 24 MR. SORSHER: Alan Sorsher, Department of Health
- 25 Services.

- 1 MR. KO: James Ko, DHS, Los Angeles.
- 2 MR. CAJINA: Stefan Cajina, C-a-j-i-n-a, DHS,
- 3 Los Angeles.
- 4 MR. HAYWARD: Bob Hayward, Lincoln Avenue Water.
- 5 MR. BURIL: Chuck Buril, JPL.
- 6 MR. VELASQUEZ: Mark Velasquez, Raymond Basin
- 7 Management Board.
- 8 MS. THOMAS: Linda Thomas, Foothill Water District.
- 9 MR. SLATEN: Go ahead and get the first slide up,
- 10 Keith.
- 11 Some of you know Susan Santos. She works with
- 12 Merrilee on the outreach, and she wanted to listen in
- 13 today.
- 14 Susan, can you hear?
- 15 All right. Well --
- 16 MS. FELLOWS: We can't hear you, so you're not going
- 17 to be able to contribute much.
- 18 MR. SLATEN: And so we got you set in the side of
- 19 the room and that's about as good as we can do with a
- 20 speakerphone.
- 21 MS. SANTOS: Okay.
- 22 MR. SLATEN: Good luck.
- 23 Okay. So starting on the Lincoln Avenue
- 24 operational summary, I'll just run through it.
- 25 It's the same chart we've shown before, but we

- 1 updated it. We show 3,700-acre feet, total pumped.
- 2 Total mass removal out of that, 162 pounds of
- 3 perchlorate and almost 20 pounds of carbon tet, and
- 4 almost 40 pounds of TCE. So it's working good in
- 5 removing mass out of the groundwater.
- 6 And just to remind people kind of what the
- 7 results are, this is from Bob's sampling testing the
- 8 perchlorate over the years, you know, going back here
- 9 now a little over a decade, that we saw spiking in about
- 10 '04. Seems to have leveled out somewhat.
- 11 This is, you know, Lincoln Avenue No. 3, which
- 12 is the closer well to JPL and has the higher levels of
- 13 chemicals. So you see the perchlorate.
- 14 Carbon tet and TCE are trending right down
- 15 around 3 or so pretty consistently, and the perchlorate
- 16 is now -- we haven't seen any high spikes lately --
- 17 trending right around in the 25 range.
- 18 Next one's No. 5, isn't it? Yeah. Lincoln
- 19 Avenue No. 5 well, further from -- from us, the second
- 20 one kind of in line away from us. And the perchlorate
- 21 has also kind -- seemed to have stabilized down a little
- 22 above 5.
- 23 Carbon tet, TCE trending right in a little --
- 24 5 or a little below.
- So the good news is we're not seeing any wild

- 1 spikes, and it looks like we kind of leveled off, maybe
- 2 trended down a little bit, if we've got -- if you could
- 3 make that -- that assumption. It may be a little early
- 4 to say that.
- 5 MR. ZAIDI: Steve, what was the previous well number
- 6 before this? What was the previous well number before
- 7 this?
- 8 MR. SLATEN: Lincoln Avenue No. 3 and Lincoln Avenue
- 9 No. 5. There's No. 3 -- No. 3 back, and it has the
- 10 higher levels.
- 11 MR. ZAIDI: Okay.
- 12 MR. SLATEN: And No. 5 has the lower levels.
- 13 MR. ZAIDI: Okay.
- 14 MR. SLATEN: And those have been on most of the time
- 15 since the system came on in summer of '04, and been
- 16 doing a good job, and I've been happy about it.
- 17 Is there anything else about -- let's go on to
- 18 the next --
- 19 Okay. JPL monitoring Well 17 is just a few
- 20 hundred feet upgradient of Lincoln Avenue No. 3. So I'm
- 21 trying to, you know, tie this story together with this
- 22 part of OU-3 that's on out near Lincoln Avenue.
- With our -- with our five screens, the middle
- 24 screen is the one where we see the most chemicals and
- 25 perchlorate. Also, what seems to have peaked a couple

- 1 years ago; seems to have leveled off now.
- 2 And in the other screens, we have little
- 3 chemicals, and they -- they also have not changed much.
- 4 So really, the screen No. 3 is the big story here, just
- 5 upgradient a few hundred feet of Lincoln Avenue
- 6 Well No. 3. Consistent with what we see in No. 3.
- 7 Anything else you want to add to the kind of
- 8 Lincoln Avenue part of No. 3 -- I mean of OU-3?
- 9 MR. HAYWARD: Just that I think last month when we
- 10 had our conference call I reported that the system --
- 11 the entire system was down for scheduled maintenance.
- 12 U.S. Filter, I asked to do some retrofitting of
- 13 their IX vessels to improve performance, and that has
- 14 been completed. And because we shut down the system to
- 15 accommodate them, we elected to do a thorough inspection
- 16 and, if necessary, repair of the GAC vessels.
- 17 And when we emptied the vessels and washed them
- 18 out, we went inside, and we found more than anticipated
- 19 or more than expected rust and corrosion on the interior
- 20 of the vessels. And we -- and we felt that that was
- 21 contributing to our premature breakthrough for the VOCs,
- 22 particularly carbon tet.
- 23 And we also realized that doing our carbon
- 24 changeouts, a small amount of exhausted carbon
- 25 was remaining in the bottom of the vessels. So we have

- 1 to address that issue also.
- 2 But we're still down. My target date for
- 3 having the system back up and running is March 1st.
- We are doing the necessary repairs to the GAC
- 5 vessels, and so far things are going as scheduled. And
- 6 we hope to be up and running full capacity sometime the
- 7 first week of March.
- 8 MR. SLATEN: Okay.
- 9 MR. ZAIDI: I've got a couple of questions.
- 10 How far is MW-17 from well Lincoln Avenue
- 11 No. 3?
- 12 MR. SLATEN: 500 feet, I think. Something like 4-
- 13 or 500 feet.
- 14 MR. FIELDS: 500 feet.
- 15 MR. SLATEN: Okay.
- 16 MR. ZAIDI: 500 feet?
- 17 And is it pumping right now, Lincoln Avenue
- 18 No. 3?
- 19 MR. SLATEN: No. Both -- both wells are off for
- 20 maintenance of the -- of the treatment vessels.
- 21 MR. ZAIDI: See, current -- current levels, the
- 22 recent levels that are here, they're about 200 or 150 --
- 23 200; right? -- at the Lincoln Avenue -- no.
- 24 Twenty-five, I'm sorry. Twenty-five at the Lincoln
- 25 Avenue --

- 1 MR. SLATEN: The perchlorate, 25 parts per billion,
- 2 yes.
- 3 MR. ZAIDI: And MW-17 is 500 feet only.
- 4 MR. SLATEN: Correct.
- 5 MR. ZAIDI: And if it keeps pumping, it will be
- 6 withdrawing the higher concentration towards
- 7 Lincoln Avenue No. 3.
- 8 MR. SLATEN: It is. That is the flow direction and
- 9 that's what's occurring.
- MR. ZAIDI: Yeah. So are there any plans to --
- 11 because they'll have to treat more and more.
- 12 MR. SLATEN: If you look at -- the only -- the only
- 13 place we have 25 parts per billion is in screen 3. We
- 14 have five screens at different levels. The wall --
- 15 MR. SORSHER: It's about 75, isn't it?
- 16 MR. SLATEN: Pardon me?
- 17 MR. SORSHER: It's about 75.
- 18 MR. SLATEN: Oh, I'm sorry.
- Where we have the higher levels is in screen 3
- 20 only. The Lincoln Avenue Well No. 3 is screened across
- 21 multiple zones, so it gets an average. It gets a
- 22 mixture of clean or almost clean water mixed in with the
- 23 higher levels that come out of the middle zone of the
- 24 aquifer.
- 25 So we've been watching this for a while, and we

- 1 have not been -- we haven't seen trending upward at
- 2 Lincoln Avenue 3 lately. So we don't expect that
- 3 there's going to be a large mass that's going to move
- 4 into Lincoln Avenue 3 soon and cause an increase in the
- 5 overall numbers.
- 6 MR. ZAIDI: What's the (inaudible) screen interval
- 7 in Lincoln Avenue No. 3? Number 3. Number 3.
- 8 No. What is the screen interval?
- 9 MR. RIPPERDA: It's screened over a large --
- 10 MR. FIELDS: Oh, it's screened over -- yeah. I
- 11 don't know exactly, but probably at least the top three.
- 12 MR. SLATEN: Maybe all of them.
- 13 MR. FIELDS: The top three screened over.
- 14 MR. ZAIDI: Oh, okay. So it's a pretty large -- so
- 15 it's diluted, basically. So its concentration is
- 16 diluted. It's not really -- it might be mixing like we
- 17 are seeing here from --
- 18 MR. SLATEN: That's correct.
- 19 MR. ZAIDI: -- from screen 1 to 5.
- 20 MR. SLATEN: Yeah.
- 21 MR. ZAIDI: So the highest concentration might have
- 22 been closer to a hundred, but it's mixing with the
- 23 undiluted parts -- the diluted parts, and so the
- 24 cumulative is 25; right?
- 25 MR. SLATEN: Correct.

- 1 MR. ZAIDI: Yeah. It can be a matter of concern,
- 2 you know. If you keep pumping it, it's not showing up
- 3 now, but it might show up later on.
- 4 MR. RIPPERDA: But the converse is what we're more
- 5 worried about.
- 6 If we go to No. 3, before they started pumping
- 7 it, the levels were increasing. So just the natural
- 8 hydraulic gradient in the area is going from JPL 17 to
- 9 Lincoln Avenue.
- 10 MR. ZAIDI: Right.
- 11 MR. RIPPERDA: And when the Lincoln Avenue wells
- 12 were off, the levels were increasing. So we're more
- 13 concerned about losing control more than having it go
- 14 even farther downgradient.
- 15 MR. ZAIDI: Yeah. That'll happen.
- 16 MR. RIPPERDA: Right. So by pumping Lincoln Avenue's
- 17 3 and 5, you're keeping that from happening.
- 18 So, you know, they are the closest thing we
- 19 have to a boundary well or a plume control well until
- 20 Pasadena wells get turned on. That's kind of the whole
- 21 point.
- 22 MR. FIELDS: Absolutely. And its removal action
- 23 under CERCLA.
- 24 MR. SLATEN: So it's working. It's -- it's out near
- 25 the leading edge of the plume. Levels are going -- have

- 1 gone down further on out, and our monitoring wells
- 2 further on out. And then Rubio Canyon and Las Flores
- 3 further on out appear to be protected now by the
- 4 Lincoln Avenue removal.
- 5 MR. ZAIDI: Yeah. But in order to, I guess, prevent
- 6 further onset of higher contamination into Lincoln
- 7 Avenue No. 3, I think we need to control from the source
- 8 with more wells.
- 9 MR. SLATEN: That's -- well, we'll get to more of
- 10 that. But between the City of Pasadena system, which is
- 11 going to go in just upgradient of the Lincoln Avenue,
- 12 and the source control, we've got a plan for the leading
- 13 edge, the source, and the middle now. Once all pieces
- 14 are in place, that's the puzzle that we've been putting
- 15 together. I think we'll have a good overall holistic
- 16 remediation.
- 17 MR. ZAIDI: Yeah. But the -- the source control
- 18 well should go in first before, I think, we start
- 19 pumping from the Pasadena well.
- 20 MR. SLATEN: They will.
- 21 MR. ZAIDI: The Pasadena well could be extracting a
- 22 lot of water --
- 23 MR. SLATEN: Uh-huh.
- 24 MR. ZAIDI: -- and they will invite --
- 25 MR. SLATEN: They will -- we'll get to it --

- 1 THE REPORTER: Excuse me. One at a time.
- 2 MS. FELLOWS: The den mother.
- 3 MR. SLATEN: Yes. I agree. As we go through the
- 4 presentation today, I think we'll see that -- we'll lay
- 5 that out.
- 6 MR. SORSHER: I have two -- well, one question, one
- 7 point I'd like to bring up.
- 8 On the Lincoln Avenue, on the carbon vessels,
- 9 where was this corrosion occurring? Was it on the
- 10 vessel wall? Was it the internals?
- 11 MR. HAYWARD: Some corrosion on the vessel walls,
- 12 but it was primarily in the lower -- the lower quarter,
- 13 below one-fourth of the vessel capacity, and the
- 14 plumbing in the lower area of the vessel, the discharge
- 15 plumbing.
- 16 MR. SORSHER: Is that stainless or -- or --
- 17 MR. HAYWARD: It's stainless. After a while --
- 18 MR. SORSHER: Still some corrosion there.
- 19 MR. HAYWARD: Yeah.
- 20 MR. SORSHER: Okay. How long were these vessels in
- 21 service?
- 22 MR. HAYWARD: See, that's what we have to take into
- 23 consideration, Alan.
- What we're doing right now, we're addressing a
- 25 system that's been on line for 12 years now -- 14 --

- 1 14 years, to be exact.
- 2 MR. BURIL: Yeah.
- 3 MR. SLATEN: Bob, to clarify, the corrosion was in
- 4 the L-GAC vessels and not the ion --
- 5 MR. HAYWARD: Yes.
- 6 MR. SLATEN: I'm sorry. I misunderstood.
- 7 MR. HAYWARD: Yes. Just the L-GAC, not the ion
- 8 exchange. Not the perchlorate.
- 9 MR. SORSHER: Right. So was it -- was it because
- 10 the -- well, you said the part from the vessel wall, was
- 11 that a problem with the lining?
- 12 MR. HAYWARD: Yeah. The enamel, the interior
- 13 coating, it just deteriorated over time.
- 14 MR. SORSHER: I see.
- 15 The other point I'd like to just bring up was I
- 16 went out there on -- I think it was the 7th. I was out
- 17 there --
- 18 MR. HAYWARD: Yes.
- 19 MR. SORSHER: -- and visited, and I spoke to the
- 20 representative of U.S. Filter.
- 21 MR. HAYWARD: Uh-huh.
- 22 MR. SORSHER: And, apparently, the reason they were
- 23 changing the plumbing, what they were finding with this
- 24 resin was that, over time, with the inland structure
- 25 they have on top, the flow patterns within the vessel

- 1 was causing the resin to move and to pile up in the
- 2 center as a mound. So there was a shallower, thinner
- 3 bed on the edges. So they had to fix that hydraulic
- 4 problem.
- 5 MR. HAYWARD: Mounding in the middle. Okay.
- 6 MR. SLATEN: Bob, what did they do to your ion
- 7 exchange vessels? Did they change the --
- 8 MR. HAYWARD: Yeah. They -- they -- they put in a
- 9 new inlet manifold designed to equalize the distribution
- 10 of the water as it mixed to surface of the resin, and
- 11 accomplished what Alan alluded to of better disbursement
- 12 of the water.
- 13 And it's -- Steve, you may know this too --
- 14 even -- even with the system operating at less than --
- 15 less than max efficiency, we were still getting the
- 16 perchlorate removal. The perchlorate removal was taking
- 17 place as expected within the specifications. So what we
- 18 expect is to even improve on that and get a longer run
- 19 life out of the resin.
- 20 MR. SLATEN: So when will you turn your wells back
- 21 on?
- 22 MR. HAYWARD: My target date, first week of March.
- 23 MR. SLATEN: Any other questions about the Lincoln
- 24 Avenue part of OU-3?
- 25 MR. SORSHER: Sorry. One other thing. I think

- 1 that -- I don't know if everybody is aware, but Lincoln
- 2 Avenue has a proposal to Stefan here on --
- 3 MR. HAYWARD: Yes. That's after --
- 4 MR. SORSHER: But -- but I think that it involves
- 5 this project as well so I --
- 6 MR. HAYWARD: Yes.
- 7 MR. SORSHER: -- think it should be -- everybody
- 8 should be aware of it, that they're proposing to have an
- 9 aquifer storage and --
- 10 MR. HAYWARD: Recovery well.
- 11 MR. SORSHER: -- recovery well.
- 12 I don't know the details of that, but they plan
- 13 to pump in Met water, inject it, and then withdraw it
- 14 later on.
- 15 MR. RIPPERDA: So would that be into -- is your
- 16 proposal to use one of the two existing production
- 17 wells?
- 18 MR. HAYWARD: Yes. Well No. 5 -- Well No. 5, we --
- 19 Lincoln -- Well No. 3 will continue to operate as -- as
- 20 it has been doing, being the lead, the well on the
- 21 extraction containment.
- But as it stands right now, we have a
- 23 measurable amount of downtime for Well No. 5 because
- 24 there is not the demand on the system to produce water.
- 25 So for a period like this, during the wintertime when

- 1 the demand of the system is low, we shut Well 5 down.
- 2 And that's when we propose to inject treated surface
- 3 water at Well 5.
- 4 MR. ZAIDI: We have also received a request about
- 5 this, and I talked to my management, and we have an
- 6 opinion about this, so we --
- 7 MR. SORSHER: The only -- the only point I'd like to
- 8 make is that, you know, as this group is talking about
- 9 this cleanup of the Monk Hill sub-basin, I think we all
- 10 are going to have to take a look at this and see how
- 11 that fits in with all the other plans.
- 12 MR. ZAIDI: Yeah. I think it's very important to
- 13 invite everybody who has some stake in the basin because
- 14 they will all be affected by this, and including JPL and
- 15 the water purveyors. Because when they're injecting --
- 16 okay. Let me tell our opinion about this.
- 17 MR. SLATEN: Well, I -- may I interrupt. I'm
- 18 staying over afterwards -- Keith and I and probably
- 19 Merrilee, if she's not called back, are staying, and Bob
- 20 has invited DHS to stay, so I know at least the main
- 21 parties are staying right after this meeting --
- 22 MR. CAJINA: And the Regional Board as well. I
- 23 would just say that, you know, today we're going to get
- 24 together afterwards and -- you know, in particular, the
- 25 Regional Board at this point needs to be okay with

- 1 what's going on. So we're just getting together after
- 2 the meeting today to figure out if we're all on the same
- 3 page and if we have something we can look forward to --
- 4 MR. SLATEN: Share the facts.
- 5 MR. CAJINA: I anticipate that after this, if this
- 6 project goes forward, then it'll become a regular agenda
- 7 item on the RPM agenda.
- 8 MR. BURIL: Keith, can you put up Lincoln Avenue
- 9 No. 5 results?
- 10 Thank you.
- 11 MR. RIPPERDA: So just -- since we're in the middle
- 12 of it now, you want to just have Mohammad say what he
- 13 was going to say, or do you want to save all the
- 14 reinjection stuff until afterwards?
- 15 MR. SLATEN: There is going to be a meeting
- 16 afterwards so --
- 17 MR. RIPPERDA: Okay.
- 18 MR. SORSHER: I didn't intend to throw the schedule
- 19 off the agenda. I just wanted to touch on --
- 20 MR. SLATEN: And it could become a long one. It
- 21 might be hard to get through the rest --
- 22 MR. RIPPERDA: Yeah.
- 23 MR. SLATEN: -- of this meeting if we do it now. I
- 24 propose we do it --
- 25 MR. RIPPERDA: Okay.

- 1 MR. SLATEN: -- when we planned to right after this
- 2 meeting.
- 3 MR. ZAIDI: Well, the Raymond Basin representatives
- 4 may not be here. I just want to tell them that they are
- 5 also -- as far as the water rights are concerned, we
- 6 think that they have also a lot to say in this --
- 7 MR. HAYWARD: Yes.
- 8 MR. ZAIDI: -- and --
- 9 MR. HAYWARD: Yes. Mohammad, Raymond Basin is
- 10 represented today, not as a -- as a member of the board
- 11 and executive committee. We've discussed this in a lot
- 12 of detail.
- 13 And what Lincoln is doing is just one -- one
- 14 part of a basin-wide project to address dry years'
- 15 demand. And Lincoln just happens to be, as -- as usual,
- 16 the agency that steps forward and gets something moving.
- 17 So Pasadena will be following as planned for
- 18 Rubio, Las Flores, everyone, to -- to help this region
- 19 meet its demands during drought and dry years.
- And not to get, again, ahead of the schedule,
- 21 but Keith has -- took an initiative to -- to assist us
- 22 in this project, and he's got some very good modeling
- 23 data to share with us when we get to that discussion.
- 24 MR. SLATEN: Okay. I'm just bringing this back up.
- 25 I shared this with you before. There's not really

- 1 anything new, unless Keith heard something last night.
- 2 MR. FIELDS: Sort of the next action item is we're
- 3 preparing this field test plan that we had promised the
- 4 last time to distribute that to everyone who was
- 5 interested -- DHS, Regional Board, EPA -- and we're
- 6 looking to have the draft ready for distribution in
- 7 March.
- 8 MR. SLATEN: Okay.
- 9 MR. FIELDS: Mohammad, you may not know, this is a
- 10 project that Battelle has through the EPA. They're not
- 11 Mark's group, but they're a research lab out of
- 12 Cincinnati to test for tailored carbon.
- And so just by the working relationship we have
- 14 here, we identified Bob's facility as a potential test
- 15 site. So we'll benefit from it from a CERCLA
- 16 perspective, but it's a separate project, and the
- 17 connection is Battelle and Bob.
- 18 MR. ZAIDI: Basically, you would present your
- 19 finding of the pilot study so that it can be --
- 20 MR. FIELDS: Right.
- 21 MR. ZAIDI: Okay.
- 22 MR. FIELDS: Lincoln Avenue or other sites. I mean,
- 23 it's really just looking at tailored carbon and ion
- 24 exchange for removal of perchlorate and --
- 25 MR. SLATEN: So the other big part of OU-3, of

- 1 course, is the City of Pasadena system.
- 2 Since we got the agreement signed last month,
- 3 now we're down to getting things in place and getting it
- 4 moving.
- 5 So if you have some ideas, some of the major
- 6 milestones -- of course, there -- I'll say it again.
- 7 The project becomes complicated because of multiple
- 8 parties and multiple documentation, permits, meetings,
- 9 between the CERCLA part of the project and the City of
- 10 Pasadena part with their internal City processes, plus,
- 11 you know, then add in 97-005 DHS.
- So it becomes a complicated schedule with lots
- 13 of interactions within the schedules and precursors that
- 14 we have to watch carefully. So, you know, we've got our
- 15 eye on that, and we're working through the early parts
- 16 of it now.
- 17 To give you an idea of some of the important
- 18 things coming up, of course, are the CERCLA, the
- 19 proposed plan, which is now to regulate or review, going
- 20 to the public April meeting shortly, and early May,
- 21 headed towards the ROD and the work plan this year.
- 22 The DHS permitting process, which I've put some
- 23 question marks in to be determined in there, I think
- 24 yesterday Alan told us that the DHS comments were in the
- 25 mail. So we're watching for those.

- 1 If there's still -- I have questions -- I don't
- 2 necessarily want to get into it now. But at some point
- 3 I need to sit down with DHS and understand what they
- 4 think their process is out to the end to be ready to
- 5 serve water because I'm still not clear on that.
- 6 Then City of Pasadena has these processes
- 7 before construction, preliminary PPR, Preliminary
- 8 Planning Review, and then their CEQA processes, which
- 9 we're trying to watch how those fall out with relation
- 10 to public meetings and when things go public because
- 11 we've got the CERCLA doing some similar public outreach
- 12 work.
- 13 And then, of course, all of the vendor
- 14 processes and system design and construction, we have to
- 15 keep an eye on.
- Right now, we have a schedule that takes us out
- 17 to the very end of 2007, if not longer, depending on
- 18 some things that we're not sure about, especially with
- 19 DHS permitting.
- 20 I just want to remind people, this is the big
- 21 project now that we're trying to keep moving. As with
- 22 any big project, there's plenty of opportunities for
- 23 schedule slippage, which goes against my nature, so I
- 24 try to ride herd a little bit to make sure the pieces
- 25 are coming together.

- 1 Any questions about that?
- 2 MR. ZAIDI: I don't have any questions.
- 3 Can we get copies of the slides? It's hard to
- 4 write down everything.
- 5 MR. SLATEN: Sure.
- 6 Okay. Gary, do you have any update on
- 7 Sunset well?
- 8 MR. TAKARA: Yeah. Keith has a few slides that
- 9 shows the perchlorate trends.
- 10 MR. FIELDS: Which one would you like first, Gary?
- 11 MR. TAKARA: Sunset is fine.
- 12 This is the trend charts for perchlorate for
- 13 moving average for the Sunset reservoir wells. It shows
- 14 all five with the exception of Copelin and -- oh,
- 15 Bangham. That's right. Bangham's also current -- wait.
- 16 Sorry. Not Bangham. Villa. Villa is off also.
- 17 Copelin is still under repairs. And Villa, I'm
- 18 not sure exactly -- quite sure what's going on with that
- 19 well.
- 20 MS. KARAKONOVA: Mechanical problems.
- 21 MR. TAKARA: Mechanical problems? Okay.
- But with the exception of, you know, the
- 23 Bangham, Sunset, and Garfield, it shows a pretty
- 24 consistent flat line trend.
- 25 Sunset has been showing optic since around

- 1 June 2005. But December and January, we had -- both
- 2 numbers came in at 16 ppb for perchlorate.
- 3 The next slide is our East Side wells
- 4 consisting of five wells. All five are currently on.
- 5 Oh, sorry. Six wells. All six are currently on. And
- 6 they've been pretty much consistent, close to nondetect
- 7 of 4 ppb.
- You can't see it, but the data is actually
- 9 overlapping so that's why it just looks like three dots,
- 10 or two dots, at the end. But all six wells are on.
- 11 MR. SORSHER: These are four-week averages?
- 12 MR. TAKARA: Four-week averages.
- And that's -- pretty much that's it, unless
- 14 anyone has questions.
- 15 MR. RIPPERDA: Does the Sunset well produce from a
- 16 different depth horizon than the other wells in the
- 17 area?
- 18 MR. TAKARA: Oh, I'm not sure exactly what --
- 19 what -- how deep that well is.
- 20 MR. SORSHER: The East Side wells are not considered
- 21 part of the Monk Hill or the --
- 22 MR. TAKARA: No.
- 23 MR. SORSHER: Are they considered Raymond Basin?
- 24 MR. TAKARA: Actually, all -- the Sunset wells and
- 25 the East Side wells are part of the Pasadena subarea of

- 1 the Raymond Basin, separate from the Monk Hill.
- 2 MR. FIELDS: The water quality between the Sunset
- 3 wells are quite different. So they are pooling from
- 4 different -- you know, it's not the same consistent
- 5 water quality, if you look at all the anions and
- 6 cations.
- 7 So there's some interesting things. And it's
- 8 not -- it doesn't appear to be just strictly related to
- 9 where the screened intervals are. They have just flow
- 10 paths that they're pooling from are different.
- 11 MR. BURIL: Gary, is the distinction between the
- 12 Pasadena sub-basin and the Monk Hill sub-basin based on
- 13 geologic
- 14 MR. TAKARA: Yes.
- 15 MR. BURIL: -- consideration?
- 16 MR. TAKARA: Yes. It's a fault. Well, I shouldn't
- 17 say fault. It's -- not being a geologist, but there's a
- 18 mound, geology mound that's preventing water from
- 19 actually moving from the Monk Hill to the Pasadena
- 20 subarea.
- 21 And there's actually a third aquifer. There's
- 22 a Santa Anita subarea, but we don't pump from that
- 23 sub-basin.
- 24 MR. ZAIDI: (Inaudible) If it's a topog---
- 25 topographic height, that's a water divide --

- 1 MR. TAKARA: Yeah.
- 2 MR. SLATEN: Okay. So moving --
- 3 MR. SORSHER: Wait, wait, wait.
- 4 MR. SLATEN: I'm sorry.
- 5 MR. SORSHER: Were you going to touch on the
- 6 additional investigation of the monitoring wells?
- 7 MR. SLATEN: Yeah. I'll touch on that.
- 8 But there's really nothing new. You know, we
- 9 put in the two new monitoring wells to the south, MW-25
- 10 and 26, and that's -- we -- that data's in the reports.
- 11 There's nothing surprising there.
- 12 MW-26, halfway in between JPL and the Sunset,
- 13 we're not showing any chemicals in it.
- 14 MW-25, which is right near the City of Pasadena
- 15 yard, is showing some -- some perchlorate in it,
- 16 always -- always has. Not surprisingly. It's pretty
- 17 close to the -- to the Sunset well.
- 18 Isn't it the closest well?
- 19 MR. FIELDS: Maybe Bangham.
- 20 MR. SLATEN: Huh?
- 21 MR. FIELDS: Maybe Bangham.
- 22 MR. TAKARA: Actually, it's --
- 23 MR. FIELDS: MW-25 is closest to Bangham well.
- 24 MR. SLATEN: It's right down there, and it's showing
- 25 perchlorate in -- in some of the zones.

- 1 And then the other -- the RI addendum, which is
- 2 the isotope study, which we started last year, it's
- 3 ongoing. We're still -- there's data that's -- samples
- 4 that are still being analyzed.
- 5 As I've said, it's a nonstandard type of
- 6 investigation with -- with nonstandard type of
- 7 analytical methods. So they're going off to university
- 8 laboratories. And its turnaround is -- is long, and so
- 9 that's still out there. I expect it will be months
- 10 before we have all the data back and have a chance to do
- 11 a preliminary look at it.
- 12 So, you know, I've always tried to lower
- 13 expectations of when that would be done because I can't
- 14 do a good prediction. I'm hoping that this year we have
- 15 information out of that.
- 16 Okay. So moving into OU-1, on-site source area
- 17 treatment plant, chugging along.
- 18 Still around 150 GPM, Nick?
- 19 MR. AMINI: 160.
- 20 MR. SLATEN: 160 gallons per minute.
- We've continued to learn about operating it,
- 22 about how to keep the system happy and how to keep all
- 23 the moving parts and everything working and how to
- 24 minimize hydrogen sulfide odors off of it because we
- 25 have trailers -- office trailers right next to it.

- 1 The success is that we've moved -- removed
- 2 259 pounds of total perchlorate.
- 3 MR. FIELDS: These are concentrations --
- 4 MR. SLATEN: I'm sorry. Yeah. I've jumped -- my
- 5 mind jumped ahead.
- 6 Those are the concentrations. We did -- the
- 7 notes on the bottom is injection wells needed their
- 8 first rehab in December, and they did have some -- some
- 9 biofouling on the screens. So we got them -- had to go
- 10 in and clean them out. That's -- I'm sure that's going
- 11 to be a regular thing, since we don't want to inject any
- 12 chlorine bleach into the ground or anything to keep them clean.
- 13 I'm sure we'll just have to go in once in a while and
- 14 physically clean them out.
- 15 And the next thing is the system expansion, and
- 16 we're going to have another small submeeting, hopefully
- 17 today, after that, to talk about some of the technical
- 18 aspects of that with the RPMs. But that will be coming
- 19 up this spring and summer to get the system up to its
- 20 full capacity.
- 21 Next slide.
- Here is the total: 190-acre foot of
- 23 groundwater extracted; 413 pounds of perchlorate
- 24 removed; 10 pounds of carbon tet; and a couple of pounds
- 25 of TCE. So it is a successful mass removal.

- 1 Next slide shows the concentrations on the
- 2 plant influent and how they've come down from close to
- 3 2500 parts per billion to, lately, down around 500 or
- 4 so. It does seem to be leveling out some.
- 5 We're still getting good mass removal. We
- 6 haven't bottomed out or anything so -- of course, when
- 7 we put in the new -- the new extraction well, we expect,
- 8 you know, that area to -- we see higher levels over in
- 9 that area right now. So we'll get even better mass
- 10 removal.
- 11 The other interesting thing about this chart --
- 12 I'll go ahead and point out again -- the bottom gray is
- 13 the effluent, and so, usually, we get water that's
- 14 clean, below detection on perchlorate on removal. But
- 15 every once in a while, the system goes a little bit out
- 16 of balance, and some perchlorate comes out the effluent
- 17 and gets reinjected back into the ground where all the
- 18 rest of the perchlorate is.
- 19 So it's not a problem for purposes of what
- 20 we're doing for mass removal. If this were a drinking
- 21 water system, this would cause -- cause problems with
- 22 being able to serve drinking water. So it shows some of
- 23 the challenges of running the biological system and
- 24 keeping the bugs happy.
- 25 MR. ZAIDI: So what was done to these pipes here?

- 1 Were they recirculated and cleaned up, or they were
- 2 just --
- 3 MR. SLATEN: That is FBR effluent that gets
- 4 reinjected into the aquifer.
- 5 MR. ZAIDI: Reinjected with 500 micrograms per
- 6 liter?
- 7 MR. SLATEN: Yes. And it came out with 1500. So we
- 8 got two-thirds of it out before we reinjected it.
- 9 MR. ZAIDI: No, you're not allowed to. We have set
- 10 limits that we have to comply with the last monitoring
- 11 of the effluent. The final effluent should not exceed
- 12 MCLs.
- 13 MR. SLATEN: Well, on average, it is better than
- 14 MCLs.
- 15 MR. ZAIDI: Not average. Each and every sample
- 16 that's taken should not exceed, whatever, the six
- 17 micrograms per liter.
- 18 MR. SLATEN: Okay. We can --
- 19 MR. ZAIDI: Monitoring requirements were set because
- 20 of that. And if they exceed it, then that's a
- 21 violation.
- MR. SLATEN: Okay. We can talk about this more.
- 23 The way we -- the way we understood the requirement is
- 24 we have a certain volume of water mass coming out.
- 25 We're cleaning up to below detection, on average, on the

- 1 mass and injecting that same water back in with where
- 2 there's already much more perchlorate in, and we're
- 3 using that mass of water, whether it has -- whether it
- 4 has below detection of perchlorate or whether it has a
- 5 few hundred parts per billion. And we need that mass of
- 6 water back in there again to flush the dirtier water
- 7 to --
- 8 MR. ZAIDI: Yeah. But --
- 9 MR. SLATEN: It's a closed system.
- 10 MR. ZAIDI: Your original proposal was that if it
- 11 exceeds, you'd reroute it to the cleanup system again
- 12 before injecting it. The injections are only allowed of
- 13 the water, the groundwater that has been cleaned up to
- 14 the actual level requirements.
- 15 MR. SLATEN: We don't have field -- we don't have
- 16 the ability to have an instantaneous perchlorate testing
- 17 to four parts per billion.
- 18 MR. ZAIDI: I know that. But these samples were
- 19 collected, and this was the concentration. And this
- 20 concentration was encountered and that --
- 21 MR. SLATEN: We knew about it after it was injected.
- 22 MR. AMINI: Mohammad, one thing about the operation
- 23 of the system is that we take weekly samples and submit
- 24 to the lab. The turnaround time used to be 10 days.
- 25 After the first occasion happened, we reduced the

- 1 turnaround time to 24 hours.
- 2 It takes 24 hours for us to figure out if it's
- 3 gone beyond the MCL, and then we act fairly quickly to
- 4 that.
- 5 MR. ZAIDI: Right.
- 6 MR. AMINI: But at the moment when it's injected, we
- 7 can't figure that out.
- 8 So in terms of violation, it takes some time to
- 9 figure out if you're injecting above MCL. That's just
- 10 the practical matter in the field of how we operate.
- 11 MR. ZAIDI: What is the turnaround time now? Is it
- 12 still 10 days?
- 13 MR. AMINI: It's 24 hours.
- 14 MR. ZAIDI: It's 24 hours.
- 15 MR. AMINI: Yes.
- 16 MR. ZAIDI: That's understandable, then. Yes.
- 17 You're catching it, and then within 24 hours --
- 18 MR. AMINI: Yes.
- 19 MR. ZAIDI: -- you can up that. At least, you're
- 20 reducing it from 10 days to 24 hours, anything that has
- 21 been there, you know, after treatment. So that's
- 22 understandable.
- 23 But letting this 500 milligrams per liter go in
- 24 there, that is totally against what was agreed upon.
- 25 MR. SORSHER: Is there any kind of a storage tank

- 1 that feeds the injection wells? Is there any kind of
- 2 blending or mixing before it's injected?
- 3 MR. AMINI: There's an equalization tank that stores
- 4 water before it goes --
- 5 MR. SORSHER: So maybe the concentration was
- 6 injected with somewhat less than the spikes because
- 7 these are -- these are what's coming out of the plant.
- 8 MR. AMINI: That is --
- 9 MR. RIPPERDA: Yeah, but that doesn't really matter.
- 10 The storage tank isn't nearly big enough to matter on
- 11 this scale of 150 gallons a minute.
- We'll have to get the Regional Board's letter
- 13 at the time out to look at the exact language. We may
- 14 have to revisit -- well, we may have to talk about
- 15 that -- we will have to talk about that some more.
- 16 You know, operationally, for groundwater
- 17 cleanup, when you've got a grossly contaminated
- 18 reservoir running a closed loop -- not quite closed loop
- 19 but, you know, injection-reinjection in the heart of the
- 20 hot spot, you know, it shouldn't matter that you're
- 21 injecting something back to the reservoir that's cleaner
- 22 than what's already in there. And to try to engineer
- 23 around that doesn't really make sense when the net
- 24 effect is you're cycling water through and cleaning it
- 25 up.

- 1 But we don't want to not comply with something
- 2 the Regional Board wrote at this time. And so we'll
- 3 have to get that out, look at the language.
- 4 MR. SLATEN: We'll pull that back up.
- 5 MR. ZAIDI: Yeah. Because I remember that I put in
- 6 the requirement for MCLs before -- of the influent
- 7 before it goes into the -- before it's injected back.
- 8 MR. RIPPERDA: So we'll have to look at that because
- 9 there are no MCLs so...
- MR. ZAIDI: No. Whatever was the limit, the DHS
- 11 limit or MCLs. For our purposes, we wanted to be -- we
- 12 follow DHS requirements, which is MCLs.
 - DHS might need an ND, but we go for whatever
- 14 the actual level -- all the MCLs so -- before it's
- 15 injected. And I think that's what we put into this
- 16 letter.
- 17 So yeah, during this operation, maybe 24-hour
- 18 turnaround is understandable. But that is 500
- 19 milligrams, putting it back into the aquifer, the idea
- 20 is cleanup. That's why it should be rerouted back into
- 21 the system so that it's cleaned up and then goes into
- 22 the --
- 23 MR. RIPPERDA: So we'll look at the letter and see
- 24 exactly how it was worded. But if it is -- and I
- 25 believe that you worded it the way you say you did --

- 1 MR. ZAIDI: Yeah.
- 2 MR. RIPPERDA: -- but I would then want to get that
- 3 changed because I would rather pump out water at 1500
- 4 parts per billion, remove a thousand parts per billion,
- 5 and put that 500 parts per billion back in than to shut
- 6 the system down where you try to reach -- try to reach
- 7 some kind of equilibrium.
- 8 Of course, it's going to be a little hard to
- 9 re-establish the bugs' equilibrium when you're not
- 10 moving water through it. You know, how are you going to
- 11 fix it when you're not pumping perchlorate, its food
- 12 source, through? And, secondly, you're still getting
- 13 cleanup.
- Now, the point is to remove the mass --
- 15 MR. ZAIDI: The point is to reduce the mass to a
- 16 level which is in accordance with DHS requirements.
- 17 MR. RIPPERDA: Right. Well, here we're cleaning up
- 18 the aquifer by removing mass, so we want the aquifer
- 19 to eventually hit DHS requirements.
- And the best way to do that is just to remove
- 21 pounds. And even when they're reinjecting at 500 parts
- 22 per billion, they're still removing pounds of
- 23 perchlorate during that time period.
- 24 MR. FIELDS: It's mass removal. I mean, our opinion
- 25 on this coming in is we didn't put in multiple

- 1 perchlorate treatment barriers to meet that goal because
- 2 we're reinjecting it. It's going to flush back through.
- 3 We will treat it again. You know, we have the system in
- 4 the source area.
- 5 So, you know, there are, obviously, issues that
- 6 happen with the biological system. But if we try to put
- 7 in an ion exchange system, it calls for astronomical --
- 8 if we put in another ion exchange system to make sure
- 9 that we have a hundred percent removal, it's just not
- 10 cost effective. It doesn't make sense for our objective
- 11 of cleaning up the source area.
- 12 And since we have -- you know, our protection
- 13 of a potential breakthrough is that we're reinjecting it
- 14 right back into where we extracted it, and we'll extract
- 15 it again and treat it. It really affects us in our
- 16 duration --
- 17 MR. ZAIDI: But it defeats the purpose. If you are
- 18 saying putting in 500 milligrams again and then you are
- 19 extracting again 1500 again and then letting it through
- 20 the system and it comes back at 300, same thing. I
- 21 mean, you are not really reducing it to a level.
- 22 That's why there are -- when we treat it with
- 23 (inaudible) activated carbon, you go through several
- 24 series so that you take effluent of this and effluent of
- 25 that and effluent of that to make sure that all of them,

- 1 finally, when it gets to this point here, it meets the
- 2 levels.
- 3 So that's why the mon- -- otherwise, there
- 4 would be no monitoring requirement if our objective is
- 5 only reducing the mass, you know.
- 6 Yeah. We need to reduce the mass, of course,
- 7 but we need to reduce the mass to an extent that meets
- 8 the requirements; otherwise, the water supply well will
- 9 be shut down.
- Can you allow 500 milligrams to be going to a
- 11 water supply well? No. Because that would not meet DHS
- 12 requirements.
- 13 Yeah. It is better than 1500, of course, but
- 14 DHS probably will not accept it. They will have to shut
- 15 it down, the water supply well. You cannot supply it to
- 16 the public.
- Yes, we are reducing the mass, but we're not
- 18 complying with the requirements.
- 19 I believe that there has to be some cure for
- 20 this kind of thing. Maybe some additional system in
- 21 there. Maybe (inaudible) system, or something like
- 22 that. But I'm not -- I'm just brainstorming here.
- 23 MR. SLATEN: All right. Well, a point I'd like to
- 24 bring up is this plant was built as an expanded
- 25 treatability study, and we have learned a lot on this

- 1 plan.
- 2 I mean, if you look at the chart, there's fewer
- 3 and shorter and lesser breakthroughs going on as we've
- 4 learned better how to handle, manage, and feed and care
- 5 for this plant.
- 6 So we're -- now the proposal is to go from an
- 7 expanded treatability study and move it into a proposed
- 8 plan and move it on as part of the permanent solution.
- 9 So I think we've done exactly what we proposed to do, is
- 10 we showed that technology would work. We showed where
- 11 some of the complications with the technology are.
- 12 We've learned how to deal with that better. So I'd say
- 13 it has been a suc- -- its been an overall --
- 14 MR. ZAIDI: Overall successful, but the thing is,
- 15 these kind of things, we should not (inaudible).
- 16 If they are -- we are coming with these
- 17 spikes -- and these spikes are only when you take a
- 18 sample, who knows what goes on -- if you're taking
- 19 weekly samples, who knows how many spikes there are
- 20 between a week each time that are going into the
- 21 aquifer? Because, as you said, we are not taking
- 22 samples. There is no way of doing that.
- 23 MR. SLATEN: I --
- 24 MR. AMINI: There are daily readings at the site.
- 25 However, the accuracy of the data is not like a state

- 1 certified lab, but there are data that we have
- 2 perchlorate problems at the site. They are not just as
- 3 accurate as what we get from the lab but --
- 4 MR. SLATEN: We have other indicators of how the ORP
- 5 and -- what are the other indicators that let us know
- 6 how well --
- 7 MR. AMINI: (Inaudible) parameter.
- 8 We measure nitrate, sulfate, perchlorate,
- 9 dissolve oxygen, ORP, and a series of chemicals. We
- 10 measure it every day at the site.
- 11 MR. SLATEN: And from that, we can infer how well
- 12 it's working --
- 13 MR. ZAIDI: Is there established documentation by
- 14 experts that, yeah, this correlates to this?
- 15 MR. AMINI: Yeah.
- 16 MR. ZAIDI: So much ORP --
- 17 MR. AMINI: Absolutely. That's how we analyze the
- 18 data. We keep a log of everything. We have charts like
- 19 this for every single -- that's how we predict how the
- 20 system is going to react to increasing the electron donor
- 21 or reducing something. That's how we read
- 22 it.
- 23 However, again, the accuracy of the data is not
- 24 like a state certified lab. So if there is a blip like
- 25 this, it will take us 24 hours to figure it out. That's

- 1 just the practicality of running a sophisticated
- 2 biological system like this. You can't go any shorter
- 3 time period than that.
- 4 MR. ZAIDI: Yeah. I know that. I know that. You
- 5 have to consider the operational realities.
- 6 But what I'm saying is that your probe,
- 7 specifically for perchlorate measurement, perchlorate
- 8 analysis, you are saying yourself that that is not as
- 9 accurate as the lab analysis, that it may be off.
- 10 MR. AMINI: Right.
- 11 MR. ZAIDI: You're not -- so -- but we need to treat
- 12 it, I think, to an extent that it's pretty close, pretty
- 13 close to what the levels are.
- 14 Then -- then after it goes into the aquifer,
- 15 and before it goes to the water supply well, they should
- 16 have a concentration which meets that level.
- 17 And that -- that level should be -- probably at
- 18 whatever level our -- for our present purposes, I think
- 19 if you may say that the effluent from -- the final
- 20 effluent from the system, if it's -- if we give it the
- 21 same number that DHS would give it for closing the well
- 22 for that particular chemical.
- For example, for TCE, they give us five
- 24 times -- ten times five micrograms per liter or
- 25 something like that.

- 1 If DHS can come out --
- 2 MR. SORSHER: That's with an MCL, with what -- we
- 3 call them notification levels.
- 4 MR. ZAIDI: Notification levels; right.
- 5 MR. SORSHER: And --
- 6 MR. ZAIDI: If DHS can agree to that, then, yeah, we
- 7 will accept that.
- 8 MR. SORSHER: An acute -- is it ten or three times
- 9 the --
- 10 MR. CAJINA: I think it's three times.
- 11 You know, the bottom line is -- I mean, you
- 12 know, with notification levels, we're not dealing so
- 13 much with the immediate acute health effects.
- 14 If you have something like nitrate that has an
- 15 immediate acute health effect, any indication that
- 16 you're exceeding the MCL means you have to go out of
- 17 service immediately. And we do deal with issues of
- 18 people having field measurements for nitrates that are
- 19 not particularly reliable, but we've been able to figure
- 20 out in most cases at least the trending tells you
- 21 something.
- 22 So if you're putting your -- in your results
- 23 for laboratory analysis as usual, but you're also taking
- 24 more frequent on-site measurements, and they might not
- 25 correlate exactly in terms of the value, but if your

- 1 field measurements indicate a sudden increase, it puts
- 2 you on alert that something is going on.
- 3 And one thing we found, even in analyses that
- 4 do have a short -- like a one-day turnaround, is that
- 5 it's -- with all the people involved in retrieving the
- 6 results and reporting them to the system and all the --
- 7 you know, the communication steps that go down there,
- 8 you always have problems with the nonevent assumption,
- 9 which is that it has been working fine forever, so
- 10 people get relaxed about it.
- And so we've actually seen nitrate results come
- 12 up and (inaudible) MCL, people just not -- not
- 13 responding to that immediately.
- 14 So if you have field measurements that come up
- 15 high, at least they put everybody on alert to be, you
- 16 know, on pins and needles waiting for that lab result
- 17 and ready to react immediately.
- 18 MR. ZAIDI: Well, maybe --
- 19 MR. CAJINA: That's what I think the field data is
- 20 good for.
- 21 MR. ZAIDI: Good point.
- I think, first, we need to establish what is
- 23 the correlation between the field probe and also the
- 24 lab? You gave us the same sample that you measure with
- 25 the --

- 1 MR. CAJINA: Over time you have some -- sorry.
- 2 MR. ZAIDI: So when you correlate that, if the field
- 3 probe is showing 15 and your lab is showing 5, then,
- 4 yeah, maybe -- and you can consistently get that kind of
- 5 correlation, then when there's a spike in a field, then

6 you can expect that you enact the alert. So --

- 7 MR. AMINI: You have protocols established for that.
- 8 If the field reading during the day is too high, our
- 9 technician will call us and we ask them to take a
- 10 sample, send it to the lab for 24-hour turnaround time.
- 11 That's beyond the weekly sampling. So we do care about
- 12 the daily readings. That's important.
- 13 MR. ZAIDI: Okay. We need everything in writing,
- 14 then, from you guys. Whatever you're telling me, give
- 15 us in writing, that these are your protocols. Okay?
- 16 MR. SLATEN: Okay.
- 17 MR. ZAIDI: We need to make sure whatever goes in
- 18 meets the requirements.
- 19 MR. SORSHER: Can I ask, on your operational
- 20 protocols, is it possible to set it up whereas, if you
- 21 have some indicator, whether it's ORP or whatever other
- 22 field measurement, if something seems unusual, is it
- 23 possible for you to automatically switch off the
- 24 injection wells and re- -- or recycle that flow until
- 25 the equipment thing is resolved?

- 1 MR. ZAIDI: Some kind of -- some kind of strategy to
- 2 do that.
- 3 MR. SLATEN: Maybe. We have to be careful because
- 4 if you do that, you may throw so much out of balance,
- 5 you'll never be able to then determine what was going on
- 6 before you changed the input, you know.
- 7 It's kind of like -- it's diagnosing something
- 8 with multiple symptoms, you know, and if you change --
- 9 you change something, you may never get back to
- 10 diagnosing what you saw in the first place.
- 11 MR. RIPPERDA: You've got an incoming water
- 12 chemistry with a pretty constant incoming perchlorate
- 13 concentration and, yeah, you could just recycle it,
- 14 close off the production well, and feed in perchlorate
- 15 to try to mimic it, but who knows what else you might
- 16 also be changing.
- 17 MR. SORSHER: Make it more complicated.
- 18 MR. SLATEN: A good idea that I heard is that we
- 19 document what our protocols are and then share them.
- 20 Let's take that as the next step, and we'll see what the
- 21 letter said that was the original approval.
- 22 And we'll get together our protocols about
- 23 how -- we've learned a lot about how to minimize, watch
- 24 this thing more closely, do a good job of maintaining
- 25 it. We'll put that together, too, and --

- 1 MR. ZAIDI: Yeah. You put anything in writing, then
- 2 we can discuss that in-house and see whether that fits
- 3 our requirements or not.
- 4 MR. SLATEN: Okay.
- 5 MR. ZAIDI: Whether we will accept that.
- 6 MR. SLATEN: We'll put it all together.
- 7 Just the cumulative mass removal over time, you
- 8 will see that we're still getting a good -- a good mass
- 9 removal. So we haven't reached any kind of an asymptote
- 10 yet on diminishing returns.
- 11 These are our monitoring wells around -- in
- 12 that area that are -- that are close to the plant, the
- 13 four monitoring wells there.
- 14 Plant operation begins. That dotted line is
- 15 important, but it also shows you there was some pretty
- 16 good swings just historically before there was any plant
- 17 operation, before there was any pumping and treating
- 18 going on.
- 19 Some of the wells, it looks like, perhaps you
- 20 could say that some of the local wells -- and I have a
- 21 little trouble with my eye following which ones, but
- 22 down on the bottom right, a couple of the wells seem to
- 23 be, you know, coming -- perhaps coming down.
- 24 Interesting thing is the purple, MW-16, looks
- 25 like it has gone up. So there's water moving around,

- 1 some water in the immediate vicinity being cleaned up,
- 2 some movement, especially around MW-16, to the higher
- 3 level water has entered that well bore.
- 4 So I think it shows that we're moving water
- 5 around and that we're being successful, at least right
- 6 where we have wells. And MW-16 is over where we propose
- 7 to put the expansion, where there's still some fairly
- 8 high levels. So I think it kind of shows we're on the
- 9 right track.
- 10 MR. TAKARA: Are all these wells deep monitoring
- 11 wells?
- 12 MR. SLATEN: Not really deep up there.
- 13 MR. FIELDS: These are shallow.
- 14 MR. TAKARA: They're all shallow?
- 15 MR. SLATEN: Yeah. You know, that's where
- 16 everything is shallower. You know, these are --
- 17 MR. RIPPERDA: You've got the granite underneath
- 18 pinching it out.
- 19 MR. SLATEN: Right. So, you know, a hundred feet or
- 20 something, sometimes shallower --
- 21 MR. FIELDS: Carbon treatment system is focused in
- 22 the upper 150 feet of the aquifer. So it's the
- 23 uppermost portion.
- 24 MR. BURIL: Keith, what parameter are you measuring
- 25 with?

- 1 MR. FIELDS: This is -- I'm sorry. This is all
- 2 perchlorate as an indicator.
- 3 MR. SLATEN: Is the next one the map -- kind of
- 4 shows -- yeah.
- 5 MW-16 is out where we're putting the expansion.
- 6 MW-7, MW-24 are over closer to the first phase that is
- 7 already in place.
- 8 MR. FIELDS: So if you look at this one, 7, 7 is the
- 9 dark blue line. And since we've started operation, it's
- 10 down in the, you know, 33 range.
- 11 MR. SLATEN: Which is kind of expected. It's right
- 12 between extraction and injection.
- 13 MR. FIELDS: Twenty-four, which is within the zone
- 14 of influence now, is down in the less than 150 range.
- 15 And then the wells that are outside of our
- 16 treatment area but are within the expansion area, are --
- 17 have gone up.
- 18 MR. ZAIDI: Can you go back to lab results?
- 19 MR. FIELDS: So this is the well that we've seen the
- 20 most drastic and the most rapid reduction in is 7, which
- 21 makes sense.
- MW-24 is the other one where we've seen
- 23 significant reductions.
- 24 Sixteen and 13 are the --
- 25 MR. ZAIDI: (Inaudible) extraction well --

- 1 MR. FIELDS: Absolutely. But they're in -- but
- 2 those are part of the reason we're doing the expansion.
- 3 MR. ZAIDI: Right.
- 4 MR. SORSHER: And --
- 5 MR. ZAIDI: The extraction well is this right here,
- 6 the blue triangle; right?
- 7 MR. FIELDS: These are -- that's our current
- 8 extraction well here.
- 9 MR. ZAIDI: And what's the distance between 16 and
- 10 the extraction well?
- 11 MR. FIELDS: Which one?
- 12 MR. ZAIDI: Yeah. This one, MW-16 and the
- 13 extraction well.
- 14 MR. FIELDS: These, these existing --
- 15 MR. ZAIDI: 600 feet?
- 16 MR. FIELDS: Maybe 400.
- 17 MS. FELLOWS: Right there at the bottom.
- 18 MR. ZAIDI: Yeah.
- 19 MR. SLATEN: No. More like 450, from the extraction
- 20 well pair up to MW-16.
- 21 MR. ZAIDI: Yeah. 500, at least.
- 22 MR. SORSHER: Keith, the remedial investigations
- 23 for OU-1 and OU-2 went into a lot of the history and
- 24 description and mass for, you know, where the former
- 25 waste pits were and where all the different activities

- 1 went on. I'd be curious -- I don't know if you know off
- 2 the top of your head -- where these -- like waste pit 3,
- 3 which they mentioned, I think it was up in that corner,
- 4 how do these correlate with what was found in the
- 5 remedial investigations and --
- 6 MR. FIELDS: Yeah. We have looked at that. There
- 7 is maybe within this blocked area here -- I think there
- 8 is 12 or 15 seepage pits and waste disposal pits that
- 9 were identified from the previous -- during the RI.
- 10 And, you know, all of the seepage pits received
- 11 such a variety of components, and including the
- 12 chlorinated solvents and the rocket fuels that -- you
- 13 know, as much as we can that it seems to correlate.
- 14 MR. SLATEN: And the monitoring wells, this is the
- 15 highest levels we've seen are right here, underneath
- 16 here. So that's why we located the extraction and
- 17 injection first phase right there.
- 18 The next highest levels were in the Phase II
- 19 area.
- 20 MR. FIELDS: It's also the area where we saw the
- 21 highest level of VOCs and soil vapor.
- 22 The -- I believe I'm right. I think our -- the
- 23 VE O1, the one that Chuck put in back in the late '90s,
- 24 was in this parking lot here.
- 25 MR. SLATEN: So we've started sort of using the term

- 1 of art, OU-1 source area, because OU-1 is really most of
- 2 the site, but the source area here is where most of the
- 3 chemicals that were ever in the ground are still right
- 4 here in this eight-acre or so area.
- 5 If we kind of do -- look at the mass of
- 6 everything all the way out to Lincoln Avenue and then
- 7 back up here and look at the concentrations, most -- at
- 8 least two-thirds of all the chemicals are still right
- 9 here close by.
- And, of course, that's why we took the expanded
- 11 treatability study route to get this plant in and
- 12 operating as soon as possible, and that's why it's
- 13 important for source control and that's why we're happy
- 14 that it's being successful.
- 15 MR. RIPPERDA: Do you have results for MW-8 and
- 16 11?
- 17 MR. FIELDS: Both nondetect. I checked those out
- 18 for perchlorate.
- 19 MR. SLATEN: So if there's a good news story here,
- 20 it's that we've got the opportunity to still capture a
- 21 big source before it goes away, and it looks like it's
- 22 work -- it looks like the capture is working.
- 23 MR. FIELDS: I think, you know, the story that we've
- 24 had here, Lincoln Avenue systems removed 3700 acre feet
- 25 and 160 pounds of perchlorate. This system removed

- 1 190 acre feet and 400 pounds of perchlorate. That's why
- 2 we're treating here.
- 3 MR. SORSHER: Sure.
- 4 MR. SLATEN: Okay. This is just a slide -- we've
- 5 been working on some different ways to explain to people
- 6 what's going on, and we've been playing with some
- 7 different graphics. And this is just to show you one of
- 8 the graphics that we played with a little bit to try to
- 9 explain how things are working.
- 10 It's a little bit of a challenge to give a
- 11 good -- for a layperson to give a good picture, kind of
- 12 what things look like on the surface and how that ties
- 13 to the subsurface. We just put that up there to show
- 14 you one of our attempts at showing how this -- how this
- 15 system works.
- 16 So moving off of the OU-1 source area
- 17 treatment.
- 18 OU-2, the soil vapor extraction, which has been
- 19 going on for years, operation was stopped in September.
- 20 Our -- we submitted a tet memo, which summarized the
- 21 operations. What we've seen so far is no signs of
- 22 rebound in the soil vapor sampling. That's the
- 23 important thing. We're in the rebound analysis phase.
- 24 We will do more soil vapor sampling in the spring, but
- 25 what we're looking at is if we don't see significant

- 1 rebound in the soil vapor, we'll prepare the remedial
- 2 action report to propose closing out OU-2.
- 3 So another success story. We got several
- 4 hundred pounds of VOCs out of the vadose zone. It looks
- 5 like it did its job, and it finished its job. If that
- 6 is true, from our next samplings, then we will be moving
- 7 towards closeout of the soil vapor extraction system.
- 8 MR. HAYWARD: Steve --
- 9 MR. SLATEN: Yes.
- 10 MR. HAYWARD: -- I think the soil vapor system -- I
- 11 think Chuck takes full credit for that.
- 12 MR. SLATEN: As well he should. That was --
- 13 MR. HAYWARD: You shouldn't claim any credit for
- 14 that.
- 15 MR. SLATEN: No. I'll tell you what. I'll claim
- 16 credit for the paperwork to turn it off, but Chuck, in
- 17 that -- Chuck, how long ago were you working on that? A
- 18 decade ago you were starting to work on --
- 19 MR. BURIL: Approximately.
- 20 MR. SLATEN: Yeah. So these things take time, but
- 21 it's -- it worked. It's been successful. And so it
- 22 will be nice to close that out administratively. There
- 23 will be less to do, and it will save us several hundred
- 24 thousand dollars a year I can put towards groundwater
- 25 cleanup.

- 1 As far as groundwater monitoring, we -- fourth
- 2 quarter data was put -- submitted. So now it's in the
- 3 record for the fourth quarter '05, and we'll be doing
- 4 the next sampling in the first quarter '06; sampling
- 5 will be in early March.
- 6 MR. SORSHER: Is that on the website where you can
- 7 download that because I didn't look at that?
- 8 MR. FIELDS: Yes.
- 9 MR. SLATEN: Yes. It should be up on the website.
- MR. FIELDS: If it is not, we have a temporary link
- 11 that I can send you.
- 12 MR. SLATEN: And I sent out the temporary link to
- 13 everybody, I think.
- 14 MR. SORSHER: I don't remember seeing it.
- 15 MR. FIELDS: Maybe just to the RPMs.
- 16 MR. SLATEN: I may have just done it to the RPMs.
- 17 I'm not sure. But look on the website. If it's not
- 18 there, we'll -- I'll get you temporary on that. Okay?
- 19 What's next? Oh.
- 20 MR. RIPPERDA: That always means it's time for
- 21 Merrilee.
- 22 MS. FELLOWS: I want to move over so Susan can hear
- 23 me, too, when I talk.
- 24 Susan?
- 25 MS. SANTOS: Here.

- 1 MS. FELLOWS: Okay. Can you hear me okay?
- 2 MS. SANTOS: I can hear you great.
- 3 MS. FELLOWS: I just stood up so I'm over near you,
- 4 but now I need my glasses.
- 5 This is just a photo that I found and thought
- 6 it was a nice site. You guys can use it for anything
- 7 you want to show in L.A. too. It's not copyrighted
- 8 because it's owned by the government.
- 9 Okay. These are just samples of the things we've
- 10 done.
- 11 Next.
- 12 I'm going to go -- this is real quick, and I'm
- 13 going to go into a little detail on each of these --
- 14 most of them.
- We had a tour through the CORO leadership
- 16 group, Southern California. Tom Sawyer Camp is the camp
- 17 right below JPL in the park that had some families
- 18 concerned about their kids playing in chemicals and
- 19 water that has chemicals.
- 20 So we went over to brief them on what our
- 21 health meetings had told us about the area and explained
- 22 the deep groundwater and that there was no path of
- 23 exposure to the children and that the mud that is used
- 24 is from Pasadena tap water that's monitored regularly
- 25 and is safe. So basically just reassuring them and --

- 1 MR. BOMAN: The mud that's used is from Pasadena tap
- 2 water --
- 3 MS. FELLOWS: They actually turn on the faucets --
- 4 MR. RIPPERDA: And they get mud out.
- 5 (Laughter.)
- 6 MS. FELLOWS: The monitoring needs to be improved a
- 7 little bit. So it's used to add to the dirt --
- 8 MR. BOMAN: To make mud.
- 9 MS. FELLOWS: -- to make the mud --
- 10 MR. BURIL: Turn (inaudible) back on, Brad.
- 11 MS. FELLOWS: I'm sorry about that.
- 12 I'm glad you arrived, Brad.
- We have updated the web page. Just take things
- 14 that were a year old where we said recently, we've now
- 15 said it's on there and then added some new things.
- We continue to update the information
- 17 repositories, which Lori does. It's a very difficult
- 18 and arduous job, and she does a great job on it.
- 19 In the near future, as you all know, we've got
- 20 the OU-1 responsiveness summary and the ROD coming up.
- 21 We have the proposed plan activities, which I'll talk
- 22 about in a minute.
- 23 Next.
- 24 MR. RIPPERDA: What's CORO?
- 25 MS. FELLOWS: CORO is a nonprofit leadership group

- 1 in California -- actually, it's nationwide now -- that
- 2 does public policy training, and they place students --
- 3 there's a competition process. They place students in
- 4 various organizations and companies throughout the state
- 5 just to learn how they do business.
- 6 But this leadership is people who are already
- 7 in work jobs, and they do, once a week, go around and
- 8 look at various issues.
- 9 The day they came up, they were looking at
- 10 water issues and went to Metropolitan Water District all
- 11 afternoon.
- 12 So they just go to education, to prisons. Kind
- 13 of a neat program, and anybody is eligible to
- 14 participate in it, from what I understand.
- 15 MR. BURIL: Merrilee, do you recall who you spoke to
- 16 at Tom Sawyer?
- 17 MS. FELLOWS: Everybody. We briefed the whole
- 18 staff. And, actually, they're coming up next week for a
- 19 tour of our water things. We thought it might help them
- 20 to get a perspective of where the OU-1 treatment cleanup
- 21 is, what the Arroyo looks like, so they can talk to the
- 22 parents better about it. We're basically trying to be
- 23 good neighbors and make sure they have all the
- 24 information they need.
- 25 And they are -- when they get parents that are

- 1 concerned, I have them call me so I can talk to them as
- 2 well and tell them what we know, show them where the
- 3 website is. Basically explain everything and provide
- 4 information so the parents can make informed decisions.
- 5 Yeah. Thank you.
- So the public involvement for the proposed plan
- 7 we have -- and then I'll go into detail -- satellite
- 8 meetings, newsletter, we'll be distributing fliers.
- 9 And you notice I say city and county, I
- 10 mentioned that before. We have strong interest in
- 11 including the county residents in all these evaluations
- 12 and public programs because they're going to be affected
- 13 just like people in the city are because they actually
- 14 abut the Windsor reservoir area.
- The advertisements, we'll have an advertisement
- 16 that the comment period begins.
- 17 And I wanted to ask you, we have a comment
- 18 period, more or less these are tentative dates still,
- 19 but April 21st to June 2nd, and we wanted to talk about
- 20 the 30 days versus the 45. If we did 30 days, we could
- 21 speed the process up a little bit. The sooner this is
- 22 all approved, the sooner it's on line.
- On the other hand, we don't want to short the
- 24 public if there're major concerns. On the other hand,
- 25 if there are a lot of concerns, we can extend it so --

- 1 MR. RIPPERDA: Thirty days is standard for
- 2 everything that we do.
- 3 MS. FELLOWS: So you think we can go to 30, then?
- 4 MR. RIPPERDA: Yeah.
- 5 MS. FELLOWS: And then, obviously, if they do get in
- 6 a concern or question, we can extend it, if we need to.
- 7 MR. RIPPERDA: Yeah. But I don't think we need to
- 8 talk about that. Thirty days is just the standard.
- 9 MS. FELLOWS: Okay.
- 10 MS. SANTOS: The recommendation was for 30 days?
- 11 MS. FELLOWS: Yeah. That was Mark Ripperda.
- 12 MS. SANTOS: Okay.
- 13 MS. FELLOWS: And then we have a public meeting,
- 14 that will still be early May. We're thinking maybe
- 15 May 4th, 3rd, something like that.
- 16 So if -- we would probably -- certainly like
- 17 the Pasadena Water and Power and Lincoln Avenue people
- 18 there. If any of the RPMs want to be there, Keith, let
- 19 me know if you have conflicts for those dates. We'll
- 20 start working around it and see what we can come up
- 21 with. And then the responsiveness summary will follow.
- 22 Prior to the comment period, we're planning
- 23 satellite meetings for the nearest residents.
- 24 Can you go to the next slide for a minute? I
- 25 know it's hard to see there.

- 1 Keith, maybe you can just point to where the
- 2 reservoir is.
- 3 MR. FIELDS: The reservoir.
- 4 MS. FELLOWS: It is in the open space, more or less
- 5 to the left of where you're --
- 6 MR. SLATEN: That's the reservoir, and the open
- 7 space a little left of that.
- 8 MS. FELLOWS: Well, it has to be on the street.
- 9 Yeah.
- 10 MR. FIELDS: Sorry.
- 11 MS. FELLOWS: So we kind of drove around and looked
- 12 at the area that was going to be, in my opinion, most
- 13 affected, and we wanted to reach out to those people,
- 14 have special little meetings saying this is coming up,
- 15 we want to answer your questions, hear what your
- 16 concerns are for two reasons: One, so that we can
- 17 better prepare for the public meeting and also so we can
- 18 start working with them on whatever they need.
- 19 Now, we want to make sure we have an objective
- 20 basis for the area we pick. And if -- we used 500 feet,
- 21 which is what you use for the notification figures for
- 22 the C.U.P., we'd like to double that. It comes to
- 23 about -- double the area, it comes to about 770 feet.
- 24 So I may use some of that data.
- 25 I'm going to be working with Pasadena to get

- 1 some mailing lists for Lincoln Avenue to make sure we
- 2 have the right people in that area.
- 3 We're also -- and you can go back to the other
- 4 side now.
- 5 We're going to hold the meetings at Five Acres,
- 6 which is a school right -- it abuts the Windsor
- 7 Reservoir, actually, and it is -- you want to go to two
- 8 more?
- 9 It was founded as an orphanage in 1888, and
- 10 they have three different rooms. They have a gym, they
- 11 have a big public meeting room that's quite nice, and
- 12 they have a room about half this size with a fireplace
- 13 in it. So that if we hold a meeting, and there's only
- 14 five or six interested people, we can go to the small
- 15 room and have kind of an informal, friendly chat instead
- 16 of doing this dog and pony. We'd still have our slides
- 17 and so forth.
- 18 So -- and they were extremely gracious and
- 19 said, "Oh, yeah, we'd love to have it here. We'd like
- 20 to be a player in the community, and, you know, do
- 21 whatever you want." So we're working with them.
- 22 They also know some of the opinion leaders in
- 23 the area. Neighborhood Watch had some things like that.
- 24 So I'm trying to talk to them about who we should reach
- 25 out to, if there's additional groups maybe we want to

- 1 target some meetings to.
- 2 MR. TAKARA: Merrilee, are you familiar with
- 3 Ann Erdman, with the City --
- 4 MS. FELLOWS: Of course.
- 5 MR. TAKARA: Okay. I'll forward -- Phyllis wants
- 6 her to get maybe involved in this public meeting. I'm
- 7 not sure to what degree.
- 8 MS. FELLOWS: Okay.
- 9 MR. TAKARA: So I'll pass on the information to Ann
- 10 and have her maybe contact you directly.
- 11 MS. FELLOWS: She's a good friend of mine.
- 12 MR. TAKARA: Okay. Good.
- 13 MS. FELLOWS: That will work. And it would work
- 14 fine even if she weren't a good friend.
- 15 Can you go back? I want to see if I got
- 16 everything.
- 17 So one of the things is what kinds of materials
- 18 do we have for these satellite meetings before the proposed
- 19 plan is approved because we can't hand that to them.
- 20 So we're doing an informal fact sheet, which would be at
- 21 a high enough level, we hope, that if RPMs have changes,
- 22 it won't affect our final version.
- And maybe, you know, we'll run it by you guys
- 24 so that you sort of have a sense of what we're saying
- 25 and if it is consistent with your thoughts on the

- 1 proposed plan.
- And so we'll have a little fact sheet. We're
- 3 going to try to have some models of how the wells work.
- 4 We're going to have maybe some CADcam views of how the
- 5 site will look with the treatment plant imposed on it,
- 6 superimposed on it.
- We have a 360-degree film. And also, for the
- 8 local residents, we can offer -- if it's okay with
- 9 Pasadena, to take them onto the site and just have them
- 10 walk around, sort of see it from inside because I think
- 11 that helps when they realize how far from the homes on
- 12 each side the plant will actually be located and show
- 13 them which gate we'll use for entrance and construction.
- 14 It's not going to be right next to the houses, things
- 15 like that.
- 16 Okay.
- 17 MR. SORSHER: Merrilee, have you run into any
- 18 opposition at all so far?
- 19 MS. FELLOWS: We haven't talked to anybody. It's
- 20 kind of how do you unveil this? And we want to make
- 21 sure we're getting through the proposed plan and knew
- 22 what the project was before we started.
- 23 And we have mentioned this, and I know Pasadena
- 24 has mentioned it at a couple of public meetings just in
- 25 general, and the paper has, and we have not heard

- 1 anything from that. And when I go through town, I
- 2 haven't heard anything.
- 3 So it was an initial thing, but I don't know
- 4 that that's a good measure of how it's going to be.
- 5 For the proposed plan comment period, this is
- 6 basically our standard approach at this point. We'll
- 7 have an advertisement in the Star News and
- 8 Pasadena Weekly announcing the comment period and the
- 9 meetings.
- We'll have fliers that we will distribute and
- 11 have available on our web.
- We will have the newspaper that will have a
- 13 two-page summary. And this is going to be more of a --
- 14 it's still going to be very lay friendly, but a little
- 15 more of a technical summary than the story we had in the
- 16 newsletter last time about OU-1, which is kind of
- 17 folksy. This one will have more of the specific data
- 18 because we want to make -- I mean, it's just a bigger
- 19 issue that's in their neighborhood, and we want to
- 20 explain that a little bit and in more detail.
- 21 And then, since we're going to do an
- 22 advertisement to start the comment period, we'll also do
- 23 an advertisement a little closer to the public meeting
- 24 to make sure we remind people to put it on their
- 25 calendar.

- 1 And then, hopefully, we'll have the meeting --
- 2 we are going to want to talk to Pasadena about having it
- 3 at the Altadena Community Center. I think that Phyllis
- 4 had actually recommended that so -- I know that for
- 5 Bob Hayward's group, that's a good location. And
- 6 that's -- that's the best location I can think of for
- 7 potentially affected people. I mean, there's things in
- 8 downtown Pasadena, but that's just -- to me, it's just
- 9 too far -- too disassociated from the issue.
- 10 And I will open the comments on that at this
- 11 point. So next.
- They will still be able to submit comments by
- 13 mail -- e-mail or hand it to me in writing any time
- 14 before the comment period is over.
- 15 The draft will also be available, and they'll
- 16 have fact sheets that will be -- the two-page summary,
- 17 we'll also have those as a separate handout. So when it
- 18 comes to public meeting, they will have the choice of
- 19 the longer proposed plan or the shorter fact sheet.
- 20 Next.
- Basically, the same, except, in addition, we're
- 22 going to -- in the meeting, we'll have a display. And
- 23 remember the C.I.S., the Community Information Center
- 24 session we had -- we'll also -- see Ann, it says formal
- 25 meeting with court reporter attending.

- 1 If you could go to the next one.
- 2 This is just to remind your Community
- 3 Information Session how it worked is we had refreshments
- 4 and displays throughout the room. And that's what we
- 5 would do, is we would have something like that for the
- 6 first part of the meeting, and then we'll go into the
- 7 formal meeting.
- 8 Can you go to the next one?
- 9 This is just an illustration of why we think
- 10 this is a good approach. You see David Clexton is
- 11 pointing. This is a woman who is very concerned about
- 12 the water quality in Altadena, and David, you know,
- 13 could walk right over and explain things in realtime to
- 14 her and have a dialogue with her one-on-one, which we
- 15 never would have heard from her otherwise, so that was
- 16 great.
- 17 Next.
- 18 We have the JPL open house, and if you haven't
- 19 been there for reasons apart from water quality, it's a
- 20 wonderful event with all sorts of displays and buildings
- 21 open. And we will have ours, like we did last year,
- 22 we'll probably update the display.
- We had a lot of translated materials into
- 24 Spanish, and they were -- everybody wanted them, not
- 25 because they all didn't speak English, but because they

- 1 wanted to practice their Spanish. And I'm happy to
- 2 serve in that role. If they learn about water quality
- 3 in Spanish, it's okay.
- 4 Next one.
- 5 This is before the people arrived, and you see
- 6 the little rocks on the table there. Because it was
- 7 windy, I had the little stacks of paper, and everyone
- 8 asked me if those were moon rocks. And a guy pointed
- 9 out to me yesterday I should have sold them. But
- 10 finally -- I mean, finally -- I couldn't get anybody to
- 11 talk about water at all. All they wanted to do was talk
- 12 about the rocks. So finally I threw them back into the
- 13 garden.
- 14 There is Steve explaining with his favorite
- 15 slide how the water is deep underground and pulled up.
- 16 Next.
- 17 Any questions about our approach or any
- 18 thoughts that you have?
- 19 MR. SORSHER: Can we get a copy of your slides as
- 20 well?
- 21 MS. FELLOWS: Yes.
- And do you guys have a model of a well going
- 23 through the aquifer, any 3D model?
- 24 MR. TAKARA: Brad?
- 25 MR. BOMAN: Not really. Well, yeah. We do have

- 1 one. Yeah. That's -- but it's not of just a well.
- 2 It's like a community with the streets and --
- 3 MS. FELLOWS: Well, I want to come over and talk to
- 4 Jennifer anyway and talk about the mapping, so maybe I
- 5 could see if we can borrow it for the public meeting, if
- 6 it looks like it'll help explain things.
- 7 MR. TAKARA: I have no problem with that. I'm not
- 8 sure what well -- what model you're referring to, Brad,
- 9 is all.
- 10 MR. BOMAN: Steve Gatson's model.
- 11 MR. TAKARA: I'll check with Steve, then. I'm not
- 12 sure exactly where that model is, but okay.
- 13 MS. FELLOWS: Because there was also one at
- 14 the Pasadena --
- 15 MR. BOMAN: Yeah. That's the one.
- 16 MS. FELLOWS: Oh, it is? Yeah. I liked that one a
- 17 lot. That will be great, if we can borrow that.
- 18 So, Susan, did you have anything you want to
- 19 add?
- 20 MS. SANTOS: No. You did a great job.
- 21 MS. FELLOWS: All right. Thanks.
- 22 Anybody who thinks of other things, feel free
- 23 to e-mail me, if you've got suggestions.
- 24 MR. SLATEN: Okay. So we have a fun year coming up,
- 25 or so. I appreciate everybody's help in keeping the

- 1 project moving. I apologize in advance if I am a task
- 2 master sometimes, trying to keep pushing people forward
- 3 and keep things moving, but I guess that's my role here
- 4 so...
- 5 MR. TAKARA: Merrilee, I just want to mention that,
- 6 as we are continuing our process with the conditional
- 7 use permit and the CEQA, the City will require a public
- 8 comment period. I'm not exactly sure of the timing of
- 9 it, but it could fall very close to your May 5th -- or
- 10 your May proposed meeting. Just to let you know.
- 11 Ideally, we would hope that that public comment
- 12 period would actually fall after your --
- 13 MS. FELLOWS: Right.
- 14 MR. TAKARA: -- after your meeting because it's a
- 15 lot more informative, hands-on, face-to-face,
- 16 one-on-one. So we'll see what the timing is.
- 17 MS. FELLOWS: So you have a public comment period.
- 18 Do you have a public meeting required too?
- 19 MR. TAKARA: There is a public hearing for the
- 20 conditional use permits. And that's -- yeah. That's
- 21 also going to be handling the initial study as well.
- 22 MS. FELLOWS: And there's no public hearing for the
- 23 building permit; is that right?
- 24 MR. TAKARA: That's correct.
- 25 MS. FELLOWS: And for the NPDES, is there a public

- 1 hearing period?
- 2 Mohammad, do you know? NPDES permit, is there
- 3 a public hearing required for that?
- 4 MR. ZAIDI: NPDES permit, of course, our water
- 5 board -- if it's a specific permit, then, yeah, our
- 6 water board has to approve it. And it's like anybody --
- 7 MS. FELLOWS: So it's a public -- it's a meeting of
- 8 your board --
- 9 MR. BURIL: The board meets, but it's open to the
- 10 public.
- 11 MR. ZAIDI: And everybody is allowed to (inaudible),
- 12 invited to go there.
- 13 MS. FELLOWS: Thanks.
- 14 MR. SORSHER: Do they handle that downtown L.A.
- 15 or --
- 16 MR. ZAIDI: Normally, they -- they have different --
- 17 the way it works (inaudible). Normally, they do it at
- 18 the MWD facility there at the intersection of -- what's
- 19 that? -- 101 and --
- 20 MR. SORSHER: Alameda Street.
- 21 MR. ZAIDI: Alameda and 101, yeah.
- 22 MR. SORSHER: Union Station.
- 23 MR. ZAIDI: Union Station, yeah, exactly.
- 24 MS. KARAKONOVA: We had a question for DHS regarding
- 25 the startup test for the plant.

- 1 Can we actually start the startup test for the
- 2 plant at the time when the public comment period starts,
- 3 or do we need to wait for that?
- 4 MR. SORSHER: Let's -- let's -- let me think about
- 5 that, and we'll get back to you. We need to strategize
- 6 how that will work out.
- 7 MS. FELLOWS: Yes. That's kind of a tricky one,
- 8 because if we have a public comment period at the end
- 9 and everybody says no, we don't want this, that can
- 10 (inaudible) and --
- 11 You know, I like to make sure the public
- 12 comment actually has a sincere opportunity to modify
- 13 your behavior based on what they say so --
- 14 MR. SORSHER: Right. I agree with you, but there's
- 15 some different philosophies within the department on
- 16 that.
- 17 MS. FELLOWS: Okay.
- 18 MR. SLATEN: That is an important point on the
- 19 overall schedule, in building the schedule and when
- 20 things -- and that's near the end, I acknowledge, and
- 21 it's over a year away, but I'm curious about how that
- 22 will play out.
- I haven't been looking to force an answer from
- 24 you because I kind of want to give you a chance to think
- 25 about it. But in the next month or so, I'd like to get

- 1 a good idea about how it's going to play out near the
- 2 end of the process.
- 3 Okay. Anything else?
- 4 All right. I guess we're finished on the
- 5 record.
- 6 (At 11:31 a.m., the proceedings were
- 7 concluded.)
- 8 -000-

1	STATE OF CALIFORNIA)				
2) ss. COUNTY OF LOS ANGELES)				
3					
4	I, ANN BONNETTE-SMITH, C.S.R. No. 6108, do hereby				
5	certify:				
6	That said Transcript of Proceedings was taken				
7	before me at the time and place therein set forth and				
8	was taken down by me in shorthand and transcribed into				
9	computer-generated text under my direction and				
10	supervision; and I hereby certify the foregoing				
11	transcript of my shorthand notes so taken.				
12	I further certify that I am neither counsel for				
13	nor related to any party to said action nor in any way				
14	interested in the outcome thereof.				
15	IN WITNESS WHEREOF, I have hereunto subscribed my				
16	name this 8th day of March, 2006.				
17					
18					
19	ANN BONNETTE-SMITH				
20	ANN DONNETTE-SWITT				
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